

# Traffic Safety Facts

## Laws

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## Bicycle Helmet Use Laws

The National Highway Traffic Safety Administration (NHTSA) supports the enactment of bicycle helmet usage laws. Bicycle helmets offer bicyclists the best protection from head injuries resulting from bicycle crashes, and bicycle helmet laws have been proven effective in increasing bicycle helmet use.

### Key Facts

- More than 49,000 bicyclists have died in traffic crashes in the United States since 1932, the first year that bicycle fatality estimates were recorded.
- In 2003, 622 bicyclists were killed and additional 46,000 were injured in traffic crashes. Children age 14 and under accounted for 130 (21 percent) fatalities, making this one of the most frequent

causes of injury-related death for young children.

- Most of the bicyclists killed or injured in 2003 were males (88 percent and 78 percent respectively) and most were between the ages of 5 and 44 (62 percent and 84 percent respectively).
- In 2003, the average age of bicyclists killed was 35.8 years, and the average age of those injured was 26.5 years.
- In 2002, almost 300,000 children aged 14 and under were treated in emergency rooms for bicycle-related injuries.
- Universal bicycle helmet use by children ages 4 to 15 would prevent 39,000 to 45,000 head injuries, and 18,000 to 55,000 scalp and face injuries annually.
- Bicycle helmets are 85 to 88 percent effective in mitigating head and brain injuries, making the use of helmets the single most effective way to reduce head injuries and fatalities resulting from bicycle crashes.
- Despite the fact that nearly 70 percent of all fatal bicycle crashes involve head injuries, only about 20 to 25 percent of all bicyclists wear bicycle helmets.
- Nationally, bicyclists aged 14 and under are at five times greater risk for injury than older cyclists.

- As with safety belts, child safety seats, and motorcycle helmets, enacting laws requiring the use of bicycle helmets, along with education and visible enforcement, is likely to be the most promising way to increase bicycle helmet usage.

### Legislative Status

- The first bicycle helmet law was passed in California in 1986 and became effective in 1987. This law was amended in 1994 to cover anyone under age 18.
- As of December 2004, 20 States (and the District of Columbia) and 131 municipal localities have enacted age-specific bicycle helmet laws. Most of these laws cover bicyclists under age 16.
- The Child Safety Protection Act of 1994 (Public Law 103-267), required the Consumer Product Safety Commission (CPSC) to develop a mandatory bicycle helmet standard.
- On March 10, 1998, the CPSC published a final rule establishing 16 CFR Part 1203, Safety Standard for Bicycle Helmets, which applies to bicycle helmets manufactured after March 10, 1999. The interim mandatory standard that went into effect on March 17, 1995 continues to apply to helmets manufactured between March 17, 1995 and March 10, 1999. The standard

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mandates several performance requirements including:

- ▼ Impact protection in a crash: The standard establishes a performance test to ensure that helmets adequately protect the head in a collision or a fall.
- ▼ Children's helmets and head coverage: The standard specifies an increased area of head coverage for children age 1 to 5.
- ▼ Chinstrap strength: The standard establishes a performance test to measure chinstrap strength to prevent breakage or excessive elongation of the strap during a crash.
- ▼ Helmet Stability: The standard specifies a test procedure and requirement for rolling off a head during a collision or fall.
- ▼ Peripheral Vision: The standard requires that a helmet allow a field of vision of 105 degrees to both the left and right of straight ahead.

In addition, helmets meeting the standard must have a label indicating that they comply with CPSC requirements.

## Cost Savings

- The estimated annual cost of bicycle-related injuries and deaths (for all ages) is \$8 billion.

- Bicycle-related head injuries are expensive because these injuries can endure and require treatment for a lifetime.
- Every dollar spent on bike helmets saves society \$30 in indirect medical costs and other costs.

## Research

In 2002, NHTSA awarded a contract to Dunlap and Associates, Inc. of Stamford, CT to evaluate bicycle helmet laws and ordinances. The overall objective of this study is to evaluate the effects of the passage of a mandatory bicycle helmet ordinance on the amount of bicycle riding and helmet use. The contractor is trying to identify two cities that can enact an ordinance requiring helmet use for those 18 years of age and younger. When those cities are identified and the legislation is enacted, comparisons will be made in bicycle and helmet use before and after enactment.

## Resources

"A Case Control Study of the Effectiveness of Bicycle Safety Helmets." Thompson, Robert S., Frederick P. Rivara, and Diane C. Thompson, *New England Journal of Medicine*, 1989.

"A Case Control Study of the Effectiveness of Bicycle Safety Helmets in Preventing Facial Injury." Thompson, Diane C., Robert S. Thompson, Frederick P. Rivara, and Marsha E. Wolf, *American Journal of Public Health*, 1990.

"Bicycle-Associated Head Injuries and Deaths in the United States from 1984 through 1988." Sacks, Jeffrey J., Patricia Holmgren, Suzanne Smith, and Daniel M. Scain, *Journal of American Medical Association*, 1991.

"Mandatory Bicycle Helmet Use: The Victorian Experience." Vulcan, A.P., M.H. Cameron, and M.H. Watson, *World Journal of Surgery*, 1992.

A Bicycle Helmet Laws and Educational Campaigns: An Evaluation of Strategies to Increase Children's Helmet Use.@ Dannenberg, A.L., Gielen, A.C., Beilenson, P.L., Wilson, M.H., and Joffe, A., *American Journal of Public Health*, 1993.

*Bicycle Use and Hazard Patterns in the United States.* Rodgers, G., Consumer Product Safety Commission, Washington, DC, 1994.

*Injury Control Recommendations: Bicycle Helmets.* Morbidity and Mortality Weekly Report, Centers for Disease Control and Prevention, 1995.

*Bicycle Helmet Use in British Columbia: Effects of the Helmet Use Law.* Foss, Robert, and Doug Beirness, University of North Carolina, Chapel Hill, NC, 2000.

"Bike Injury; The Facts" National Safe Kids Coalition Web site, [www.safeKids.org](http://www.safeKids.org)

## State Bicycle Helmet Laws: Summary\*

Jurisdiction	Ages/Conditions	Jurisdiction	Ages/Conditions
Alabama	Under 16	Maryland	Under 16
California	Under 18	Massachusetts	Under 13
Connecticut	Under 16	New Jersey	Under 14
Delaware	Under 16	New York	Under 14
District of Columbia	Under 16	North Carolina	Under 16
Florida	Under 16	Oregon	Under 16
Georgia	Under 16	Pennsylvania	Under 12
Hawaii	Under 16	Rhode Island	Under 16
Louisiana	Under 12	Tennessee	Under 16
Maine	Under 16	West Virginia	Under 15

Source: BHSI\*\*

\* Check with your State bicycle pedestrian coordinators for county, city, and local bicycle helmet laws.

\*\* Bicycle Helmet Law information from Mandatory Helmet Laws: A Summary. Bicycle Helmet Safety Institute, (BHSI) web site, [www.helmets.org](http://www.helmets.org), 2000.